

LARVAL *HYDROPSYCHE* AND *SMYPHITOPSYCHE* RECORDS FROM WEST VIRGINIA (TRICHOPTERA: HYDROPSYCHIDAE)¹

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ABSTRACT: Over 4,000 larvae of the genera *Hydropsyche* and *Symphitopsyche* were collected from 225 sites in West Virginia. A total of 15 species, including 13 state records, and two species groups were identified from the collections. Important extensions included *S. macleodi* (Flint), *S. ventura* (Ross), *H. leonardi* Ross and *H. hoffmani* Ross.

Until this investigation, only three *Hydropsyche* species have been recorded from West Virginia: *H. morosa* Hagen, *H. sparna* Ross and *H. ophthalmica* Flint (Ross, 1944 and Flint, 1965). Tarter and Hill (1979) noted the *H. scalaris* group from the Cranberry Glades.

From 225 sites in West Virginia, approximately 4,000 larvae of the genera *Hydropsyche* and *Symphitopsyche* were collected and identified. Fifteen species, including 13 state records, and two species groups were recorded from these collections. The classification system employed in this study follows that of Schuster and Etnier (1978), and species are arranged alphabetically with drainage basins and rivers (Janssen, 1973). State records are indicated by an asterisk (*). All specimens are stored in the West Virginia Benthological Survey at Marshall University, and detailed records are found in Nugen (1981).

Four important range extensions are noted: *S. macleodi* (Flint) (GA, NC, TN, VA); *S. ventura* (Ross) (ME, MA, NY, PA, TN, VA, NEWFOUNDLAND); *H. leonardi* Ross (MI, VA); and *H. hoffmani* Ross (MD, VA).

Symphitopsyche

- S. bifida* group: *S. cheilonis* (Ross); *S. bronta* (Ross), Central Form. *S. bifida* (Banks): Drainages I, II (1, 2, 4), III (5, 7a, 7b) V (10, 13, 14, 15, 16) and VI.
- **S. bronta* (Ross): Drainages I, II (1,3), III (5, 6, 7a, 7b, 8), V (12, 13, 14, 16), VI and VII.
- **S. macleodi* (Flint): Drainages II (1, 3), III (7b), V (13) and VII.
- S. morosa* (Hagen): Drainages II (1, 3), III (5, 6, 7b), V (10, 12, 13, 14) and VI.
- **S. slossonae* (Banks): Drainages I, II (1, 2, 3), III (6, 7a, 7b), IV, V (13, 14, 15, 16), and VI.
- S. sparna* (Ross): Drainages I, II (1, 2, 3), III (5, 6, 7a, 7b), V (10, 11, 12, 13, 14, 15, 16), VI and VII.
- **S. ventura* (Ross): Drainages II (3), III (7a, 7b), V (12, 13, 14, 15, 16), VI and VII.
- **S. walkeri* (Betten and Mosely): Drainage II (1).

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Hydropsyche

H. depravata group: *H. betteni* Ross; *H. depravata* Hagen: Drainages I, II (1, 2, 3, 4), III (5, 7a, 7b, 8), IV, V (10, 11, 12, 14, 15, 16), VI and VII.

**H. dicantha* Ross: Drainages I, II (1, 3), III (5, 7a, 7b, 8), IV, V (11, 12, 13) and VI.

**H. hageni* Banks: Drainages III (8), V (10, 14, 16) and VI.

**H. hoffmani* Ross: Drainages III (8), IV, V (14, 15) and VII.

**H. leonardi* Ross: Drainage V (16).

**H. orris* Ross: Drainages I, VI.

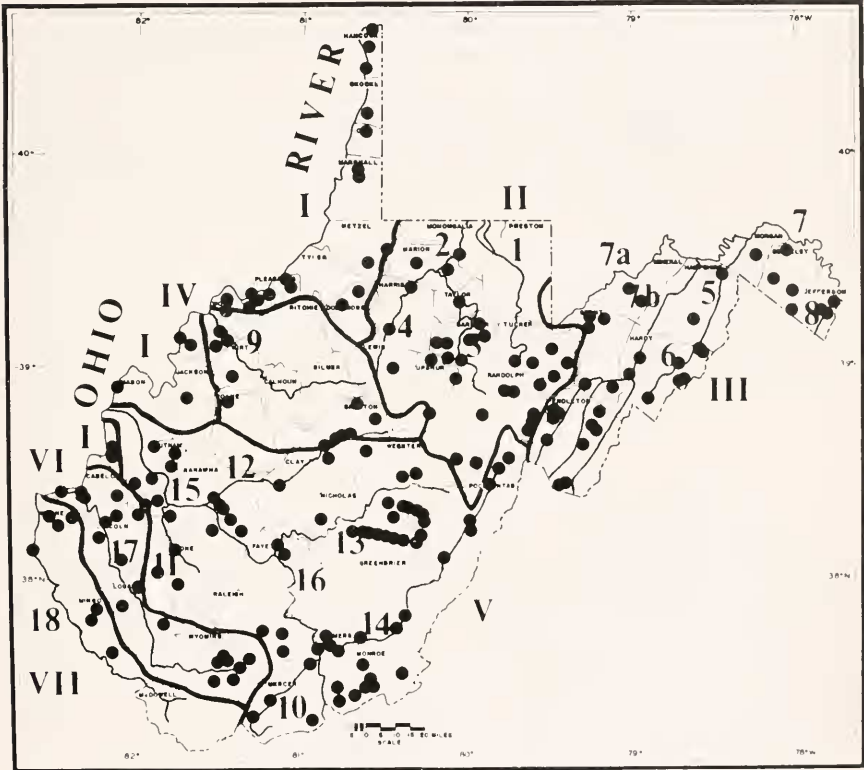


Figure 1. Drainage Basins and Major Rivers in West Virginia. Black dots represent collecting sites.

I. Ohio River. II. Monongahela River: 1. Cheat River 2. Monongahela River 3. Tygart River 4. West Fork River. III. Potomac River: 5. Cacapon River 6. Lost River 7. Potomac River a. North Branch b. South Branch 8. Shenandoah River. IV. Little Kanawha River: 9. Little Kanawha River. V. 10. Bluestone River: 11. Coal River, 12. Elk River, 13. Gauley River 14. Greenbrier River 15. Kanawah River 16. New River. VI. Guyandot River. VII. Big Sandy River.

- **H. phalerata* Hagen: Drainage III.
**H. scalaris* Hagen: Drainages III (5, 7a, 7b, 8), V (12, 13, 14).
**H. simulans* Ross: Drainages I, IV, VI, and VII.

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REFERENCES

- Flint, O.S., Jr. 1965. New species of Trichoptera from the United States. Proc. Ent. Soc. Wash. 67(3): 168-176.
Janssen, R.E. 1973. Earth Science: A handbook on the geology of West Virginia. Educational Marketeers, Inc., Clarksburg, West Virginia. 345 pp.
Nugen, C.K. 1981. A taxonomic study of the *Symphitopsyche* Ulmer and *Hydropsyche* Pictet larvae of West Virginia (Trichoptera: Hydropsychidae). Unpublished Master's Thesis, Marshall University, Huntington, West Virginia. 149 pp.
Ross, H.H., D.A. Etnier 1944. The caddisflies, or Trichoptera, of Illinois. Bull. Ill. Nat. Hist. Surv. 23: 1-326.
Schuster, G.A., D.A. Etnier. 1978. A manual for the identification of the larvae of the caddisfly genera *Hydropsyche* Pictet and *Symphitopsyche* Ulmer in eastern and central North America (Trichoptera: Hydropsychidae). EPA-600/4-78-060. 129 pp.
Tarter, D.C., P.L. Hill. 1979. Caddisflies (Trichoptera) of the Cranberry Glades in West Virginia. Ent. News 90(4): 205-206.

SOCIETY MEETING — OCTOBER 7, 1982

The first fall meeting of the American Entomological Society was held October 7, 1982 at the University of Delaware. Nine members and four guests attended. Dr. Judith Hough, Assistant Professor of Entomology and Applied Ecology at the University of Delaware, presented an illustrated lecture on "Oviposition Behavior of Root Maggots." She described how maggots of the fly *Hylemya antiqua* can do considerable damage to commercial onion crops in the Northern United States. Females appear to be attracted to volatile, sulfur-containing compounds produced by onions after physical damage or by rot-inducing microorganisms. In Southern Delaware the related seed corn maggot, *H. platura*, is an agricultural pest on melon and bean seeds planted in April. The factors which stimulate oviposition in this species are being studied in Dr. Hough's laboratory.

In notes of local entomological interest, Howard Boyd reported the appearance of a substantial population of the tiger beetle, *Cicindela lepida*, on a tract of disturbed New Jersey Pine Barrens about 30 miles from the coast. Aside from some very early records (Clementon and Lahaway (Smith, 1909)), this is the first New Jersey record of this species so far from coastal sand dunes and the first on recently disturbed soil. Hal White displayed specimens of *Aeshna tuberculifera* and *A. verticalis* collected October 3 at Lums Pond State Park. This is the first time either of the dragonflies has been found in Delaware. He also reported that the damselfly, *Argia bipunctulata*, was collected in the state for the first time this summer.

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